

RORIPA HISPIDA (Desv.) Britton, Mem. Torr. Bot. Cl. v. 169 (1894). *Brachilobus hispidus* Desv. Journ. Bot. iii. 183 (1814). *Sisymbrium hispidum* (Desv.) Poir. Encyc. Suppl. v. 161 (1817). *Nasturtium hispidum* (Desv.) DC. Syst. ii. 201 (1821). *N. palustre*, var. *hispidum* (Desv.) Gray, Man. ed. 2: 30 (1856). *Roripa palustris hispida* (Desv.) Rydb. Bot. Surv. Neb. iii. 26 (1894) and Contrib. U. S. Nat. Herb. iii. 149 (1895). *Radicula hispida* (Desv.) Britton, Torreya vi. 30 (1906). *Rad. palustris*, var. *hispidum* (Desv.) Robinson, RHODORA, x. 32 (1908).—Widely ranging in North America.

R. HISPIDA, var. GLABRATA Lunell, Bull. Leeds Herb. no. 2: 6 (1908). *Nasturtium terrestre* of Am. auth., not R. Br. *N. palustre* Am. auth., not DC. *Radicula palustris* Am. auth., not Moench. *Roripa palustris* Am. auth., not Bess.—Widely distributed in North America; Japan.

GRAY HERBARIUM.

A NOTE ON THE GENUS *PASPALUM* IN NEW ENGLAND

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IN the course of continued work on the series of "Preliminary Lists of New England Plants," it has been necessary to examine with some care the species of *Paspalum* found there. The result is the following note, which is published by way of explanation of the classification to be used in the next list and in the hope that it may prove otherwise useful.

There is no New England plant known to me which answers at all obviously to the description of *Paspalum setaceum* in Gray's Manual, "spikelets glandular-spotted and pubescent." There is, however, a slender, small-spikeleted plant known from Nantucket (according to Bicknell), from two stations in Rhode Island and four in Connecticut, in which close examination under a good lens reveals a bit of minute pubescence near the apex of the second glume, at least in a young flower.¹ Under a 40 × binocular, the hairs composing this pubescence are seen to be tipped with tiny glands. Specimens precisely similar have been seen from New Jersey, eastern Pennsylvania, Maryland, and Virginia. Specimens otherwise like them from farther south have glandular-spotted and densely pubescent spikelets. From this southern phase the Manual description was no doubt drawn; but (as Mrs. Agnes Chase very kindly informs me)

¹ The glume is hardly ciliolate, as described by Bicknell (Bull. Torr. Bot. Club xxxv. 182 (1908)); the binocular shows that the hairs are set definitely back from the margin.

Michaux's type, though said to be from "Carolina inferior," is of the glabrate-flowered northern form. And it is so described—"glumis . . . glabris." The name *P. setaceum* is therefore applied to the New England plant with entire correctness.

Of course, nearly all the specimens labelled *P. setaceum* in the older herbaria belong to the species next to be discussed; and a good many recently so determined are merely forms of that species with the spikelets slightly smaller than usual.

I am quite unable to distinguish between the New England plants determined in herbaria as *P. pubescens* and *P. Muhlenbergii*. The principal differentiating character given in the Manual for the former, "culms hirsute below the racemes," surely cannot, by itself, furnish adequate ground for specific separation; and it quite fails to correlate with anything else. There is, indeed, a plant, well represented by specimens collected at Hartford, Conn., by Bissell, Woodward, and Weatherby (no. 2796, Sept. 25, 1909) in which a more or less pubescent culm is associated with leaves more narrowly linear (30-45 times as long as wide) than is usual in this group. But, in New England, at least, one is quite as likely to find narrow leaves associated with glabrous as with pubescent culms; and the same lack of uniformity is present in broad-leaved specimens. Glabrous basal sheaths, a third character adduced by Nash, I have seen in no New England material. Certain specimens from farther south, which were studied by Nash for the North American Flora and which I have had the privilege of examining at the New York Botanical Garden, do indeed have them, and combined with narrow leaves and pubescent culms; but in the New York material, as in that I have seen elsewhere, there is every gradation between this extreme and that with pubescent sheaths, broad leaves and glabrous culms which Nash called *P. Muhlenbergii*. It appears necessary to unite the two under one species; and since *P. pubescens* is by far the earlier name and was (again according to information courteously furnished by Mrs. Chase) correctly interpreted by Nash, it must be used for the resultant group.¹

Careful comparison shows no difference whatever between the two Connecticut plants reported (in Bull. Conn. State Geol. and Nat. Hist. Survey xiv. 50 (1910)) as *P. plenipilum* and *P. circulare*;

¹ Unless, indeed, Professors Wiegand and Eames are right in their further reduction of the whole to *P. ciliatifolium* Michx. (Cornell Univ. Agric. Exp. Sta. Mem. xcii. 83 (1925)). I am not yet prepared to follow them quite so far.

both are good *P. circulare*. Mr. R. W. Woodward, who collected both, writes to me as follows in answer to an inquiry. "I have never been able to find any difference between the reported *Paspalum plenipilum* and *P. circulare*. I recollect distinctly that the Orange plants were handed over to Mr. Bissell, who in turn referred them to a *Paspalum* expert The latter named them *P. plenipilum*, Mr. Bissell accepted the determination and so reported it." Evidently the identification of the "*Paspalum* expert" (whose identity is not now remembered) was taken without question and, in spite of Mr. Woodward's well-grounded doubts, the fact that it was erroneous was not detected in compiling the Connecticut Bulletin and apparently has escaped notice until now. *P. plenipilum* should be excluded from the New England flora.

P. psammophilum is ordinarily a well-marked species. I have seen only a single specimen (Fernald and Long, no. 17889, from Chatham, Mass., Aug. 14, 1919) in which any mixture of characters appears. In it, the leaves are villous, as in *P. pubescens*, but the spikelets pubescent.

We have, then, in New England, three clearly marked and essentially homogeneous species and a fourth, the commonest and most wide-ranging of all, set off cleanly enough from the other three, but within itself subject to considerable fluctuations, so erratic that it seems useless to attempt to organize them into varieties. The four, as here understood, may be keyed out as follows.

- A. Sterile lemmas coriaceous, obscurely or not at all nerved; spikelets 1.5–2 mm. long; leaves more or less papillate-ciliate, at least toward the base. B.
- B. Spikelets about 1.5 mm. long, on hispidulous pedicels; second glume with a few minute, deciduous, glandular hairs toward the apex; leaves villous. *P. setaceum*
- B. Spikelets about 2 mm. long. C.
- C. Spikelets glabrous, on merely scaberulous pedicels; leaves and sheaths villous. *P. pubescens*
- C. Spikelets glandular-pubescent, on hispidulous pedicels; leaves and sheaths with close, soft pubescence. *P. psammophilum*
- A. Sterile lemmas of comparatively thin texture, with prominent central and marginal nerves; spikelets about 3 mm. long; leaves not ciliate. *P. circulare*

GRAY HERBARIUM.

ADDITIONS TO THE FLORA OF CAPE COD.—It may be of interest to record the following plants, apparently new to Cape Cod, which were collected by the writer in 1926: *Lycopodium clavatum*, on a moist